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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): 35691US1

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on _____

Signature _____

Typed or printed name Steven J. Solomon

Application Number	Filed
10/806,643	2004-03-23

First Named Inventor: Jeffrey J. Schroeder et al.

Art Unit	Examiner
1771	Hai Vo

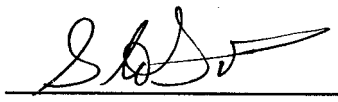
Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- [ ] applicant/inventor.
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- [X] attorney or agent of record. Registration number 48719
- [ ] attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____



Signature

Steven J. Solomon

Typed or printed name

216-579-1700

Telephone number

August 7, 2007

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

- [ ] *Total of _____ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Claim 47 is the only independent claim. It stands rejected under Sec. 102(b)/103(a) as being anticipated by or obvious over Zwick, under Sec. 102(b)/103(a) as being anticipated by or obvious over Ragland, and under Sec. 103(a) as being obvious over Poole in view of Ragland.[1]

Rejection based on Zwick

Claim 47 states that the foam layer is "deformable to accommodate a particular shape and contour to which the heat shield is to be bent and to generally conform in use without substantially damaging the cellular structure of the foam as a result of such deformation." This specific feature is nowhere disclosed in Zwick. In fact, this feature is ***not addressed*** in the Examiner's rejection based on Zwick. Accordingly, no showing or argument has been made, or can be, that this feature would be *necessarily inherent* from any teaching in Zwick. In paragraph 8 of the Office action, the Examiner explained that the art-based rejections were maintained because Zwick does disclose two metallic layers. On further review of Zwick, this fact is acknowledged. However, this still leaves the facts that Zwick does not disclose a *deformable* foam layer as claimed, and that the Examiner never addressed this shortcoming in Zwick. These facts were pointed out in the Amendment filed on March 2, 2007 at the middle of p. 7. For the foregoing reasons, the rejection of claim 47 based on Zwick is believed to be improper.

Rejection based on Ragland

The Examiner has correctly acknowledged that Ragland does not disclose the deformability limitation of the foam as-claimed. But then she incorrectly suggested this property must be inherent based on the following reasoning:

> [I]t appears that the heat shield laminate meets all the structural limitations as set out in the claims. The foam layer is disposed between the two metallic layers. The foam layer has a thickness within the claimed range. The heat shield laminate is mounted to an automotive body panel. The laminate can be cut to form the various shapes desired for heat and/or sound barrier for particular end use applications.... The final laminate is rolled on a roll (page 15, lines 20-25). Therefore, it is not seen that the foam could not have been deformable [as recited in claim 47] as the laminates of Ragland and the present invention are directed to similar products which serve the same purposes....

Office action, ¶ 9, reiterated at ¶ 12.

Respectfully, this reasoning is incorrect. It is true that Ragland discloses an embodiment

[1] The Section 112 rejections were kindly withdrawn in the last Advisory action. Only the art-based rejections remain.

that includes a metal – foam – metal arrangement. It is true that the heat shield in Ragland appears fastenable to an automobile. The thicknesses of the foam layers among the reference and certain dependent claims in the application may be comparable. Ragland's laminate may be able to be cut to various shapes. Both Ragland's heat shield and that claimed may be directed to similar purposes. **But none of this has anything to do with or suggests commonality between the respective deformability characteristics of Ragland's heat shield and the one claimed**. That two foams are sandwiched between metal layers, have similar thicknesses, and are both intended for damping applications, does not suggest that they must have similar deformability characteristics. Nor does it suggest that they must have similar temperature resistance or vibration damping properties. It certainly does not suggest that they must have the same combination of all three of these characteristics. Indeed, a non-deformable layer could satisfy the first four characteristics quoted above and cited by the Examiner as common to the foam layers in both Ragland and claim 47. That is, a non-deformable layer:

a) could be disposed between metal layers for sound absorption,

b) could be provided in various thicknesses,

c) could be fastened to an automobile,

d) could be cut into various shapes.

None of these features would tend to make a non-deformable layer deformable.

As for the fifth characteristic cited by the Examiner, that Ragland teaches rolling the laminate on a roll, the Examiner has misunderstood Ragland. Citing page 15, lines 20-25 of Ragland, the Examiner stated: "The final laminate is rolled on roll (page 15, lines 20-25). Therefore, it is not seen that the foam could not have been deformable to accommodate a particular shape and contour" as claimed." Office action, ¶ 12. However, this disclosure from Ragland refers to laminates comprising *fiber layers*, not foam layers.

It is true that on page 15 it is disclosed that a "final laminate 45…is rolled on a roll 46." However, there is no ***foam*** layer present in the "final laminate 45." Instead, there are only aluminum foil, adhesive and *fiber* layers. To better understand this, one needs to begin reading from page 14 in Ragland. The entire description on pp. 14-15 is directed to Fig. 2, which illustrates a "particular embodiment." Reading from pp. 14-15 and comparing to Fig. 2, it is clear that in the "particular embodiment" there described, all of the insulating layers are made of fibers, more particularly a polyester or fiberglass nonwoven mat or aramid fibers. Following is a list of all the layers in the "final laminate 45," which can be discerned from pp. 14-15 of Ragland

with reference to Fig. 2:

Layer	Composition
21	Aluminum foil
22	Adhesive film
23	Fiber mat comprising a polyester or fiberglass nonwoven mat
42	Laminate of layers 21,22,23
31	Aramid fibers
32	Adhesive film
41	Laminate of layers 31,32
51	Aluminum foil
53	Adhesive film
45	Laminate of layers 41,42,51,53

Accordingly, in the embodiment described at the passage cited by the Examiner (p. 15 lines 20-25 of Ragland), where the "final laminate 45…is rolled on a roll 46," *there is no foam layer*. Reading Ragland as a whole, it is obvious that Ragland is focused on the use of fiber layers, not foam. Foam is disclosed briefly as one alternative to a fiber layer. But it is nowhere disclosed how one would manufacture the final laminate if foam were to be used in place of fibers. The very reason fibers may have been preferred in Ragland is that the resulting laminate is deformable. In any event, a careful reading of Ragland demonstrates the Examiner is incorrect to suggest that it discloses a deformable *foam* layer. Finally, the Examiner's "rolled on a roll" argument contradicts her acknowledgement that "Ragland does not specifically disclose the foam layer being deformable to accommodate a particular shape and contour to which the heat shield is to be bent and generally conform in use without substantially damaging the cellular structure of the foam as a result of such deformation." Office action, top of p. 5.

For the foregoing reasons, a deformable foam layer as claimed is not disclosed in Ragland. Accordingly, the rejections of claim 47 over Ragland are believed improper.

Rejection based on Pool in view of Ragland

The Examiner has pointed out that Poole discloses a metal – insulator (polymer based blanket) – metal heat shield. Last Office action, middle of p. 8. She also pointed out that this heat shield is "easily manipulated with bending or folding into a mounting position," (column 6, lines 60-65 of Poole), also on p. 8 of the Office action. In the next sentence, the Examiner acknowledged that "Poole does not specifically disclose the polymer based blanket layer being a foam layer." *See* p. 8 of the Office action. To supply this teaching the Examiner has relied on Ragland, which she contends discloses a deformable foam layer.

However, Ragland *does not* disclose such a *foam* layer for the reasons discussed above.

Regarding Poole, the insulating layer in that patent ***is made of fibers, not foam***. It is not hard to imagine how a layer of fibers would be deformable without damaging it. But none of the references, including Ragland as discussed above, discloses a ***foam*** layer that will provide this property, let alone while simultaneously providing the claimed temperature resistance and vibration damping performance. The combination of all of these features in a single foam, between two metallic outer layers in a heat shield, simply does not appear in any of the references. Poole relies on a layer of fibers to provide the deformability of the insulating layer in that reference. It cannot be considered obvious to substitute Ragland's foam for Poole's fibrous layer, unless it is known that Ragland's foam will supply the *same deformability* so as not to destroy the utility of Poole's heat shield as set forth at col. 6, lns. 60-65 of that reference (cited by the Examiner). As already explained, this feature is unknown from Ragland.

Before the present invention, it simply was not known to supply a ***foam*** layer as recited in claim 47 in an automobile heat shield that can be deformed to conform to the surface contour of an automobile panel where the foam layer is applied *after being formed.* The present invention uses a deformable foam whose cell structure will not be significantly damaged on bending the layer to conform to a curved surface contour. As a result, the heat shield can be manufactured in flat sheets, and pressed into position to conform to the contour of the body panel. Such a construction is unknown from the prior art. This is evidenced by the fact that after ***six*** substantive Office actions, ***six*** separate searches of the prior art, and a prior pre-appeal review, the only references the Examiner has found to disclose a *deformable* heat shield *use fibers*, not foam as the damping layer. This further suggests the novelty of the claimed heat shield construction, which uses a deformable *foam* layer. For the above reasons, the rejection of claim 47 based on Pool over Ragland also is believed improper.

Lastly, it is again noted the last Office action was the *sixth* substantive examination of the claims. The deformability limitation discussed above has been in the claims since the application was filed, and accordingly has been searched and examined *six* times. Therefore, should the panel determine the remaining art-based rejections are to be withdrawn, it is respectfully requested that the application be allowed, and not reopened for further prosecution. It is believed any further searching by the Examiner would be merely duplicative of the efforts and the record she has already carefully made, and of the numerous references already cited.